



Phosphorus and Blue-Green Algae

Why We Need to Prevent Phosphorus From Entering Our Lakes and Rivers.

What is Blue-Green Algae? Why Is It a Problem?

Blue green algae are a type of bacteria. People can get sick from the microcystin toxin they produce if they have direct contact with a blue-green algae bloom, by either intentionally or accidentally swallowing water, by having direct skin contact (as when swimming, wading, or showering), or by breathing airborne droplets containing the toxins, such as during boating or waterskiing. Microcystin toxin can damage liver cells when ingested. Children are at greater risk than adults of developing serious liver damage should they ingest high levels of microcystins.

It is widely accepted by scientists that high **phosphorus** levels in lakes and rivers contribute to blue-green algae blooms and reduced water quality. **Research has shown 1 pound of phosphorus can grow 700 pounds of blue-green algae.** High concentrations of phosphorus in sediments also feed aquatic plants and the invasive species Eurasian water milfoil. All this extra growth leads to low levels of dissolved oxygen which adversely affect fish.

One source of phosphorus is chemical lawn fertilizer. When excess fertilizer is applied to lawns, grass is unable to use it all and it is carried by runoff into our waterways. Reducing the use of fertilizers containing phosphorus is a simple way to reduce the amount of phosphorus reaching our lakes.

Brockton is taking the proactive step of preparing a by-law that will protect the inland lakes by regulating the application of fertilizer within 100 metres of the lakes. A copy of the proposed by-law is below for public review and comment.

THE CORPORATION OF THE MUNICIPALITY OF BROCKTON BY-LAW # 2011-16

BEING A BY-LAW TO REGULATE THE APPLICATION OF FERTILIZER TO ENSURE THE WATER QUALITY OF INLAND LAKES WITHIN THE MUNICIPALITY OF BROCKTON

WHEREAS Section 8 of the Municipal Act, as amended, authorizes Municipalities to pass by-laws to enable them to govern their affairs and to respond to municipal issues.

AND WHEREAS Section 9 of the Municipal Act, as amended states that a municipality has the capacity, rights, powers and privileges of a natural person for the purpose of exercising its authority under this or any other Act.

AND WHEREAS Section 11 (1) and (2) of the Municipal Act, as amended allows that a lower-tier municipality may provide any service or thing that the municipality considers necessary or desirable for the public and may pass by-laws, respecting the environmental well-being of the municipality; and the health, safety and well-being of persons.

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AND WHEREAS the Ministry of the Environment has prepared a report regarding the Water Quality Assessment of Lake Rosalind Report which summarizes that it is essential that compounds like insecticides, pesticides, herbicides, ammonia and chlorine be prevented from reaching the lake as they can harm the aquatic life that is responsible for maintaining the water quality conditions.

AND WHEREAS the Council of the Municipality of Brockton desires to protect its inland lakes from recurring algae blooms and to ensure that the water quality and ecosystem in its inland lakes is maintained and improved.

NOW THEREFORE the Council of the Corporation of the Municipality of Brockton enacts as follows:

1. Short Title of By Law

This by law may be referred to as the Inland Lakes Water Quality By Law

2. Definitions

2.1 *Fertilizer* – means an artificial nutrient for the growth of plants and lawns.

2.2 *Organic Fertilizer* - means compost and/or manure

2.3 *Inland Lake* - means an inland body of water; Marl Lake, Lake Rosalind, Pearl Lake, Dankert Lake.

2.4 *Vegetative Cover* - Any or all of the plants of an area or a region. (To be confirmed)

3. Fertilizer Ban

3.1 The use of artificial fertilizers and organic fertilizers shall be banned within one hundred (100) meters of inland lakes in Brockton.

4. Exclusions

4.1 The by-law does not apply to lands zoned agricultural as the Ministry of Environment has jurisdiction over the application of nutrients on agricultural lands.

4.2 Organic fertilizer may be applied to vegetable and flower gardens that are more than five (5) meters from the water's edge.

5. Removal of Vegetative Cover

5.1 The issuance of all demolition, building permits will be contingent upon the preservation of vegetative cover on the property.

5.2 No more than fifty percent (50%) of the vegetative cover may be removed.

6. Penalties, Compliance and Enforcement

6.1 This by law shall be administered and enforced by the By Law Enforcement Officer of the Municipality of Brockton.

6.2 Any person who contravenes any provision of this by-law is guilty of an offence and upon conviction is liable to a fine as provided in the *Provincial Offences Act*.

- \$200 first offence
- \$300 second offence
- \$400 third offence

7. Severability

7.1 Where a court of competent jurisdiction declares any section or part of a section of this by-law invalid the remainder of the by-law shall continue in force.